

**Notice of Allowability**

Application No.

10/751,034

Examiner

Alessandro V. Amari

Applicant(s)

VAN DRIENHUIZEN ET AL.

Art Unit

2872

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/23/2006.
2. ☒ The allowed claim(s) is/are 14-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 11/18/06; 2/23/06
- ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
- ☒ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☒ Other IDS of 7/7/04.

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. David Alberti on 03 May 2006.

The application has been amended as follows:

In claim 14, line 1, delete the term "MEMS" and replace with  
—Micro-Electromechanical Systems (MEMS)—

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 7 July 2004 did not contain a copy of the Foreign references WO 01/94253A2 and WO2003/102631. The copies of these references have since been obtained and have been considered. Another copy of the IDS of 7 July 2004 is enclosed with this office action showing that all references have been considered as indicated by the initials.

### ***Allowable Subject Matter***

3. Claims 14-24 are allowed.
4. The following is an examiner's statement of reasons for allowance:

Claim 14 is allowable over the prior art for at least the reason that the prior art fails to teach or reasonably suggest, "a plurality of hinges for suspending said support layer relative to said base support for movement about two axes, the plurality of hinges

being disposed in a different plane from said support layer; a bulk element comprising a device layer having an optical surface; and a pedestal that extends between the support surface and the device layer” as set forth in the claimed combination. Claims 15-24 are allowable based upon their dependence on claim 14.

The prior art of record, Michalichek et al and Mei et al teach a MEMS apparatus comprising a base support; a planar support layer having a support surface; a plurality of hinges for suspending said support layer relative to said base support for movement, wherein the hinges are disposed in a different plane from the support layer and a bulk element comprising a device layer having an optical surface and a pedestal that supports the device layer. However, Michalichek et al does not teach that the pedestal extends between the support surface and the device layer rather in Michalichek et al, the pedestal holds up both the device layer and the support layer but does not extend between them. Mei et al does not teach a plurality of hinges for suspending said support layer relative to said base support for movement about two axes, the plurality of hinges being disposed in a different plane from said support layer. Mei et al only teaches one-dimensional “up-down” movement or movement in one axis and also are in the same plane from the support layer rather than in a different plane as claimed. In regard to Mei et al and Michalichek et al, there is no motivation or teaching to modify the differences cited above as derived.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alessandro V. Amari whose telephone number is (571) 272-2306. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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